
Digital participation in hybrid realities and communities

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1 Introduction

The pandemic has given a huge boost to digitisation in business, science, education, private networks and public institutions, highlighting innovative ideas as well as vulnerabilities in equal measure. Since 2020, our lives and work have been transformed into a hybrid socio-technical reality based on digital communication and collaboration. Participation is increasingly mediated, encompassing education, business, science, private life and society in general. Sometimes it is still about infrastructures (in education), often we discuss ways of working and just as often the (digital) skills required for this, especially with an ageing population. Debates increasingly revolve around the possibility of returning to a ‚normal‘ life and we increasingly ask ourselves what a normal life is and whether this is actually to be expected or desired.

We have obviously embraced permanent technology-based change with increasing acceleration. But where is the journey really going? Are communities constituted exclusively in the interplay of hybrid realities? Are big data a threat or an opportunity? Can we process it at all or does it require fundamentally different tools and methods - such as visual analytics, virtual reconstruction, virtual engineering, virtual assistants and collaborative VR? What does digital innovation have to do with the pandemic and vice versa? Can our lives in hybrid communities be fulfilling in the long run, or are virtual realities more of an escape room from a threatening everyday life? Which competence frameworks between DigCompEdu and Literacy do we need?

With the aim of addressing these questions through a program that is equally fed by science and application, a group of scientists from the faculties of Education and Economics as well as the CODIP – Center for Open Digital Innovation and Participation (as successor of the Media Center) of the TUD Technische Universität Dresden, with the friendly support of several permanent partner universities – the HGU Hochschule der Deutschen gesetzlichen Unfallversicherung, the HTW Hochschule für Technik und Wirtschaft Dresden, the FHD Fachhochschule Dresden and the DIU Dresden International University – will host the 24th GeNeMe in autumn 2021.

An international steering committee has previously reviewed the more than 50 German and English-language submissions in the form of double-blind peer reviews, as a result of which the present conference proceedings could be compiled.

2 Thematic focus and conference tracks

Again, the submission of contributions took place in a two-stage procedure via abstract and full paper (research contribution, practical contribution or interactive format). The thematic focuses listed below served as orientation and were understood as an open invitation to submit contributions.

2.1 Digital strategy and platform economy

Digital transformation demands new business models, fundamentally changes business processes and finds new market forms. It is important to clarify whether production, processing and service can be separated at all in a digital economy and which industry specifics (logistics, security, health care, IT, etc.) are essential. The main topics are:

- sharing economy
- Social Business and Entrepreneurship
- Innovation and change management
- Flexibilisation of business models and organisation
- Agility in Management and Leadership

2.2 Knowledge transfer, competence acquisition and knowledge work

The creation of knowledge and the associated processes of development, sharing, use and preservation are more challenging than ever against the background of demography, diversity and internationality. The digital transformation leads to new demands on the competencies of all actors in the field of data literacy. These require changed learning processes and arrangements, which in turn require further development and opening of educational institutions. Keywords are among others:

- 21st Century Skills for knowledge work and lifelong learning and learning in communities
- Learning, teaching and personalization
- Networked knowledge repositories, educational data, AI and data literacy
- Breaking up educational monopolies, competition in (further) education
- Community Management and New Work Design

2.3 Collaboration in public spaces and participatory processes

Design approaches for public spaces are inconceivable without online-supported communication; the digital transformation is increasingly becoming the framework for action in public administration and (social) participation. An increase in crisis situations is changing the role and communication of politics and its perception by the public. The resilience of authorities, public bodies and NGOs is becoming increasingly important.

- Accessible Online Services
- Participation, co-construction and prosumption in digital formats
- Competencies and framework conditions for e-government
- Sustainability

2.4 Hybrid application scenarios for collaborative interaction

Human-computer interaction is part of everyday life and often takes over social communication functions. Smart devices are our partners for the accomplishment of daily tasks. Playful elements in digital formats innovate parts of our everyday life in leisure, education, personnel development or organizational design.

- User Experience, Usability and MobileFirst
- Augmented, virtual reality and mixed reality, hybrid and immersive experiences
- new (interactive) visualization possibilities of information and knowledge
- Gamification and Game Based Learning
- Playful Leadership and Playful Organization

Topics of the tracks at the 24th GeNeMe

With the format of a completely hybrid conference, the opportunities and challenges can also be experienced in practice at the conference. The conference programme covers a wide range of topics and is divided into the following eight tracks over two days:

- Teaching formats and methods
- Quality criteria for online learning scenarios
- Acquisition of competences
- Digital strategy and platform economy
- Gamification
- Participation and collaboration in public spaces
- Management of participation and collaboration
- Interactive formats

3 Acknowledgements

As in previous years, GeNeMe is opening up to interested parties from the English-speaking world – although German remains the predominant language of the texts published here. 2021 is again special as the second year in the pandemic. GeNeMe as a conference, but also the topics of its actors, enjoy massive demand across society. The digital transformation is progressing rapidly but not in a linear fashion; digitality seems to be the basic building block of our economic prosperity, but also of our social life.

As a result of the peer review, the GeNeMe Steering Committee was able to select from mostly very high quality submissions from academia and practice. In addition to the indexing at SCOPUS via Elsevier new is the inclusion of the proceedings in the GI library and at PEDOCS, a nice success for visibility. The proceedings presented here are available as full text shortly after publication in the Technische Universität Dresden Open Access System at www.qucosa.de. In this Open Access repository you will also find the texts of all GeNeMe predecessor volumes since the beginning of the conference series in 1998.

The editors would like to take this opportunity to thank in particular all the authors whose contributions lend this volume a special quality. We would also like to thank the more than 30 reviewers from science and industry. Only through their highly competent work as members of the program committee has it been possible, given the focus of the topic area and the large number of contributions, to make the present selection and also to provide constructive, detailed feedback to the authors of rejected contributions.

Finally, we would like to thank all those involved in the review process, the compilation of manuscripts for the conference proceedings, the operation of the online review system, and the administration and realization of the 24th GeNeMe! Ms. Nicole Filz has taken over the editorial support and the layout of the present volume in a proven manner, Ms. Anne Jantos and Ms. Lydia Drewanz have not only made the hybrid formats possible in terms of information technology, Mr. Torsten Sauer has provided administrative support for guests, speakers and supporters of the conference in an exemplary manner and Ms. Lisette Hoffmann has accompanied the planning and implementation of the conference didactics together with a group of students.

Once again, we wish you, the readers, a profitable read!

Dresden in October 2021

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